

"Express Mail" Label No. EL623999207US

Date of Deposit April 19, 2001

PATENT  
Attorney Docket No.: 2307O-115710US  
Client Ref. No.: 1999-004-1

BOX PATENT APPLICATION  
Assistant Commissioner for Patents  
Washington, D.C. 20231

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

MICHAEL J. DELWICHE, et al.

Divisional of Application No.:  
09/349,814

Filed: July 9, 1999

For: SENSOR FOR ANALYZING  
COMPONENTS OF FLUIDS

Examiner: Redding, D.

Art Unit: 1744

PRELIMINARY AMENDMENT

BOX PATENT APPLICATION  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to examination of the above-referenced application, please enter the following amendments and remarks.

IN THE SPECIFICATION:

On the first page of the specification, before "FIELD OF THE INVENTION" insert a new paragraph as follows:

**--CROSS-REFERENCES TO RELATED APPLICATIONS**

This application is a divisional of and claims the benefit of U.S. Application No. 09/349,814, filed July 9, 1999, the disclosure of which is incorporated by reference.--

IN THE CLAIMS:

Please cancel Claims 1-10 of the prior application. Claims 11-20 are pending. A copy of the pending claims are attached in the Appendix of this Amendment for the Examiner's convenience.

## CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,

Jeffrey S. Mann  
Reg. No. 42,837

**TOWNSEND and TOWNSEND and CREW LLP**  
Two Embarcadero Center, 8<sup>th</sup> Floor  
San Francisco, California 94111-3834  
Tel: (415) 576-0200  
Fax: (415) 576-0300  
JSM:kad  
SF 1201281 v1

IN THE SPECIFICATION:

On the first page of the specification, before "FIELD OF THE INVENTION"  
insert a new paragraph as follows:

**--CROSS-REFERENCES TO RELATED APPLICATIONS**

This application is a divisional of and claims the benefit of U.S.  
Application No. 09/349,814, filed July 9, 1999, the disclosures of which are incorporated by  
reference.--

09/349,814

**PENDING CLAIMS**

1           11.     A method of analyzing a component of an enzymatically catalyzed  
2 process from a test sample, comprising:

3                 providing a liquid sample of the test sample;

4                 contacting the sample either with an enzyme for which the component is a  
5 substrate or with a substrate for which the component is an enzyme, wherein the contacting  
6 forms carbonate ion in equilibrium with carbon dioxide; and, detecting the carbon dioxide.

1           12.     The method as in a claim 11 wherein the biological fluid is blood, urea  
2 or milk and the component is urea.

1           13.     A method of analyzing milk urea nitrogen (MUN) in dairy milk,  
2 comprising:

3                 providing a dairy milk sample;

4                 contacting the sample with urease, at least one of the dairy milk sample and  
5 the urease being in a liquid solution, wherein the contacting forms an equilibrium between  
6 carbonate ion and carbon dioxide;

7                 shifting the equilibrium towards carbon dioxide; and,

8                 detecting carbon dioxide.

1           14.     The method as in claim 13 wherein the carbon dioxide is detected as a  
2 vapor phase in fluid communication with the liquid solution.

1           15.     The method as in claim 13 wherein the carbon dioxide is detected as a  
2 partial pressure.

1           16.     The method as in claim 13 wherein the equilibrium is shifted by  
2 admixing the liquid solution with a pH adjusting agent.

1           17.     The method as in claim 13 further comprising correlating the carbon  
2 dioxide detected to the concentration of MUN in the dairy milk sample.

1           18.     The method as in claim 13 wherein the contacting includes agitating  
2 the dairy milk sample.

1           19.     The method as in claim 17 wherein the prediction error for MUN in the  
2 dairy milk sample is not greater than about +1- 1 mg/dl.

20. The method as in claim 13 wherein the urease is immobilized.